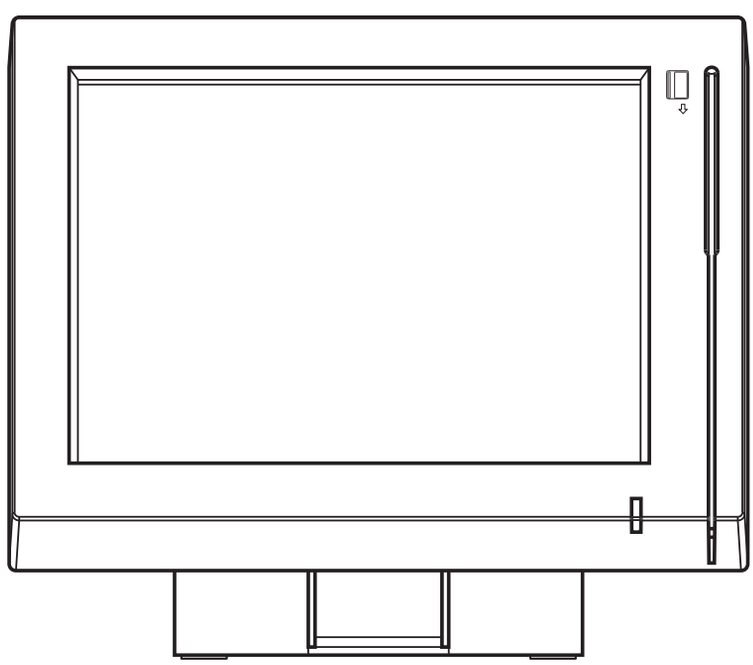
USER MANUAL

VERSION V1.1 JULY 2010

All-in-one Hardware system



Copyright 2010
All Rights Reserved
Manual Version 1.1
Part Number: 3LMPP8800111

The information contained in this document is subject to change without notice. We make no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. We shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

This document contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be photocopied, reproduced or translated to another language without the prior written consent of the manufacturer.

TRADEMARK

Intel®, Pentium® and MMX are registered trademarks of Intel® Corporation. Microsoft® and Windows® are registered trademarks of Microsoft Corporation. Other trademarks mentioned herein are the property of their respective owners.

Safety

IMPORTANT SAFETY INSTRUCTIONS

1. To disconnect the machine from the electrical power supply, turn off the power switch and remove the power cord plug from the wall socket. The wall socket must be easily accessible and in close proximity to the machine.
2. Read these instructions carefully. Save these instructions for future reference.
3. Follow all warnings and instructions marked on the product.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

CE MARK

This device complies with the requirements of the EEC directive 2004/108/EC with regard to “Electromagnetic compatibility” and 2006/95/EC “Low Voltage Directive”.

FCC

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

CAUTION ON LITHIUM BATTERIES

There is a danger of explosion if the battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Battery Caution

Risk of explosion if battery is replaced by an incorrectly type.
Dispose of used battery according to the local disposal instructions.

Safety Caution

Note: To comply with IEC60950-1 Clause 2.5 (limited power sources, L.P.S) related legislation, peripherals shall be 4.7.3.2 "Materials for fire enclosure" compliant

LEGISLATION AND WEEE SYMBOL

2002/96/EC Waste Electrical and Electronic Equipment Directive on the treatment, collection, recycling and disposal of electric and electronic devices and their components.

The crossed dust bin symbol on the device means that it should not be disposed of with other household wastes at the end of its working life. Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure.
To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial wastes for disposal.

Revision History

Changes to the original user manual are listed below:

Revision	Description	Date
1.0	• Initial release	2009 December
1.1	• Add Finger Print, iButton, RFID • Add New Stand (Generation 2)	2010 July

Table of Contents

1. Packing List 1

1-1. Standard Items 1
1-2. Optional Items 2

2. System View 3

2-1. Front View 3
2-2. Side View 3
2-3. Rear View 4
2-4. I/O view 5
2-5. Dimensions - with 2nd Gen. Stand- 0 degree 6
2-6. Dimensions - with 2nd Gen. Stand- 60 degree 7

3. System Assembly 8

3-1. RAM Module Replacement 8
3-2. HDD Replacement 9
3-3. Power Adapter Installation 11

4. Peripheral Installation 12

4-1. Stand Installation 12
4-2. VFD Installation 13
4-3. pSSD Card Module Installation 14
4-4. Finger Print, iButton, RFID Installation 14
4-5. Cash Drawer Installation 15

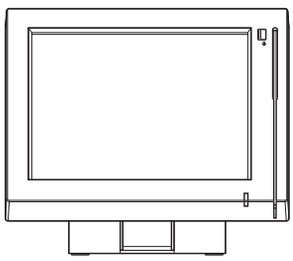
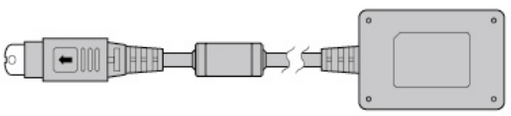
5. Specification 17

6. Jumper Setting..... 19
6-1. Motherboard Layout 19
6-2. Connectors & Functions 20
6-3. Jumper Setting 21

Appendix: Drivers Installation 24

1. Packing List

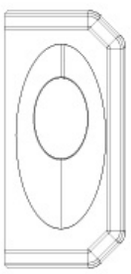
1-1. Standard Items

a. 	d. 
b.	e.
c.	f.

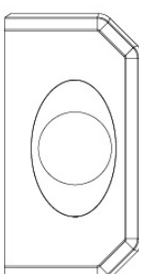
a. System
b. Driver bank
c. User guide
d. Power adapter
e. Power cord
f. RJ45-DB9 cable (x2)

1-2. Optional Items

a.

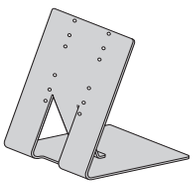


b.

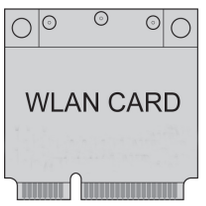


c.

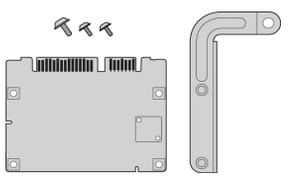
d.



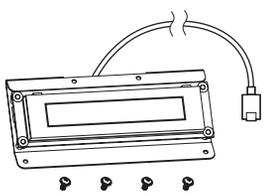
e.



f.



g.

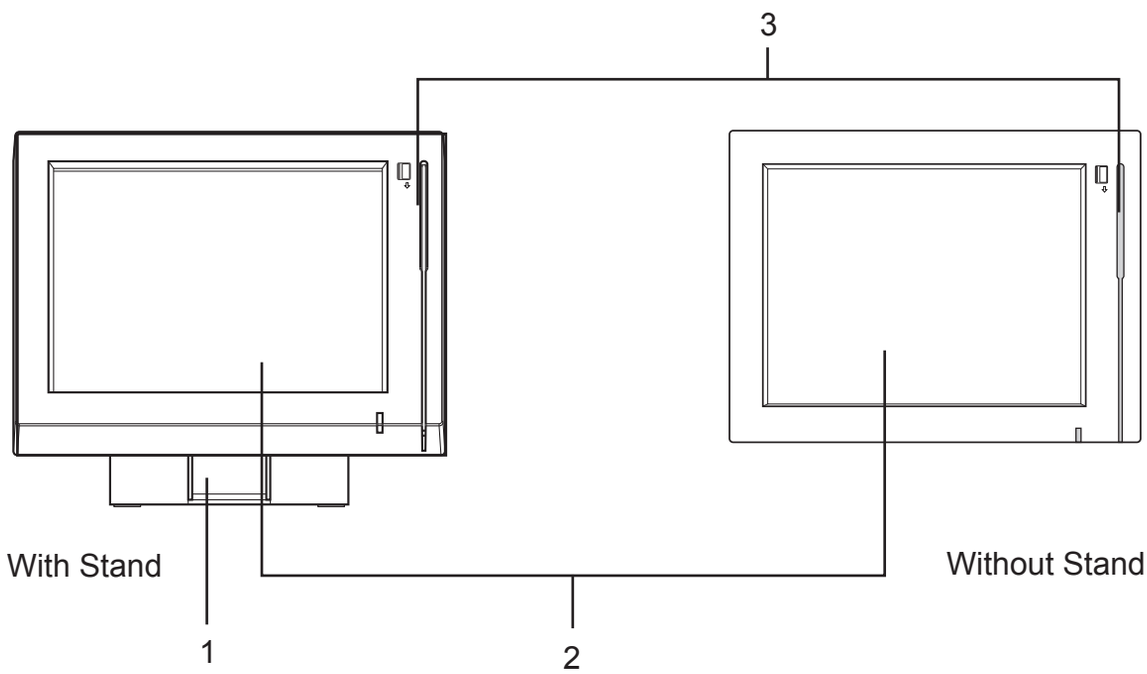


a. Finger Print
b. iButton
c. RFID

d. Stand - 1st Generation
(hereinafter called "1st Gen. Stand")
e. WLAN Card + Internal antenna
f. pSSD module + bracket
g. VFD module
(including RJ-45 cable;
attached to 2nd Gen. Stand)

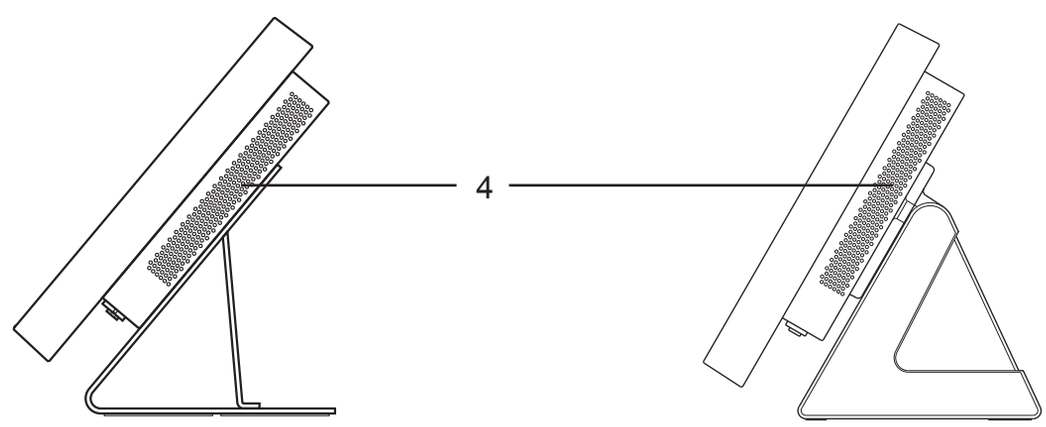
2. System View

2-1. Front View



1. Metal Stand
2. Touch Screen
3. Built-in MSR

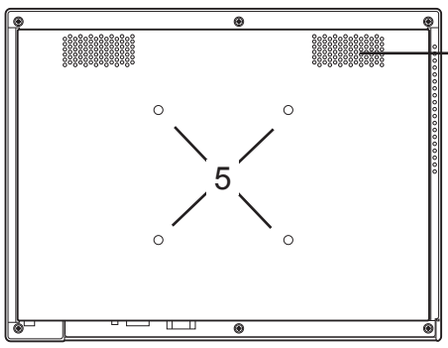
2-2. Side View



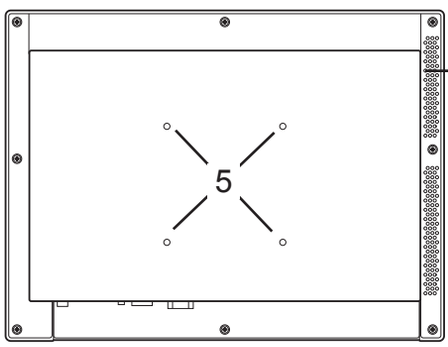
4. Ventilation holes

2-3. Rear View

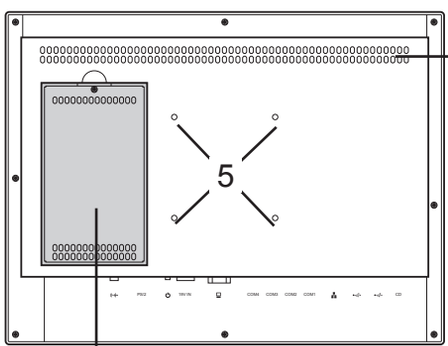
8.4" System



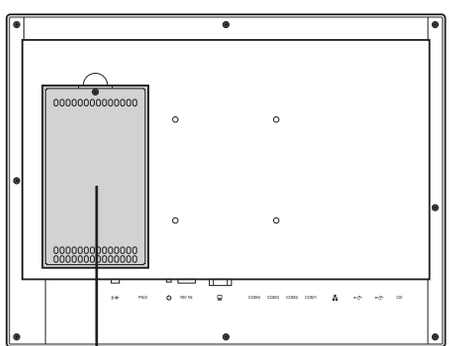
10.4" System



12.1" System



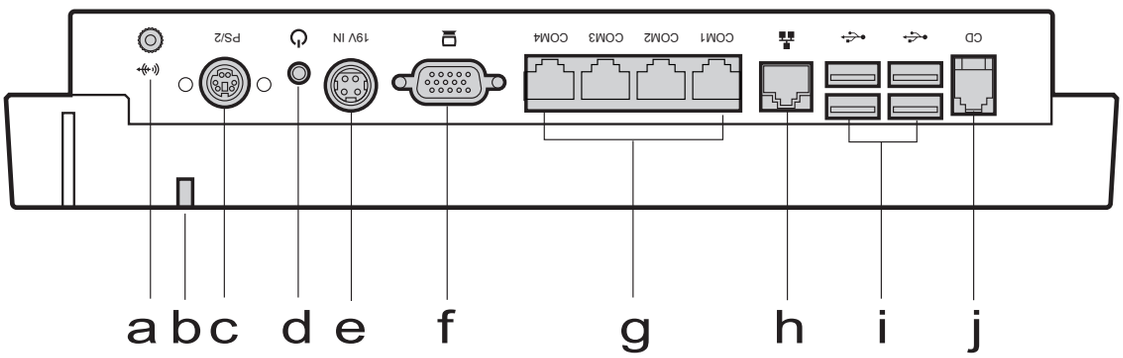
12.1" Fanless System



7

5. VESA Mounting Holes
6. Ventilation
7. HDD Door (12.1")

2-4. I/O view

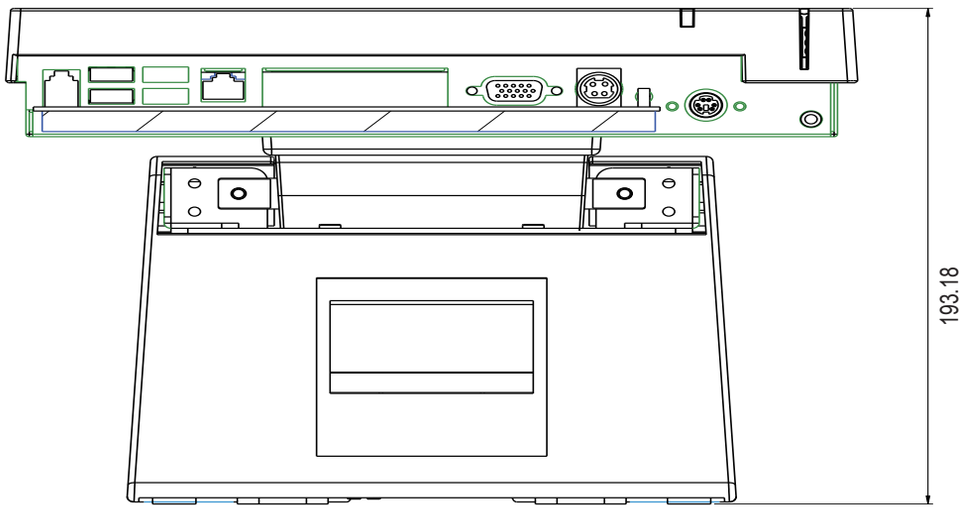


Item No.	Description
a	Line-Out *(optional)*
b	Power LED indicator
c	PS/2 *(optional)*
d	Power Button
e	DC Jack
f	2nd VGA
g	COM Port 1, 2, 3, 4 (from right to left)
h	LAN (10/100/1000)
i	USB x 4
j	Cash Drawer Port

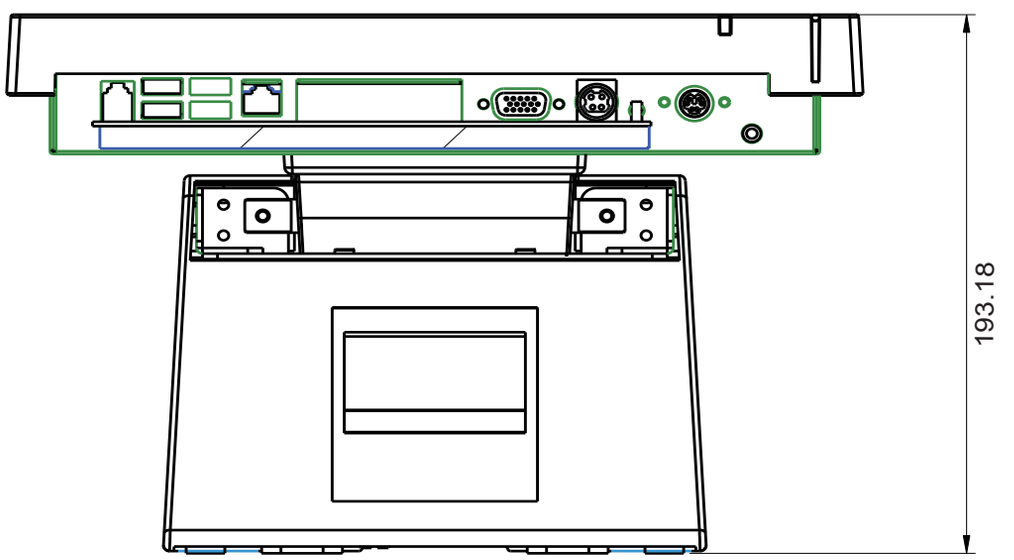
Note: The location of the I/O ports may vary slightly, depending on whether you have a system with or without fan.

2-5. Dimensions - with 2nd Gen. Stand- 0 degree

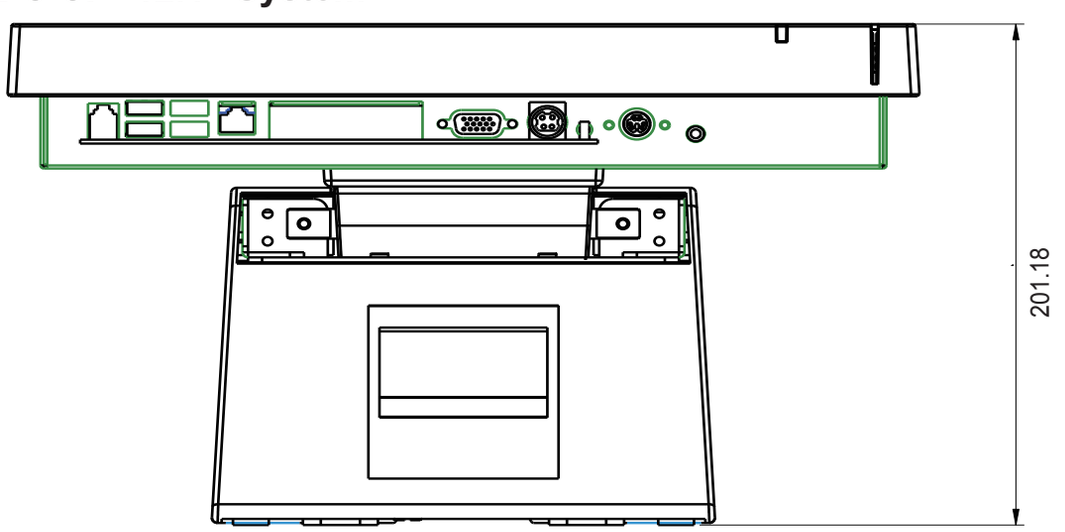
2-5-1. 8.4" System



2-5-2. 10.4" System

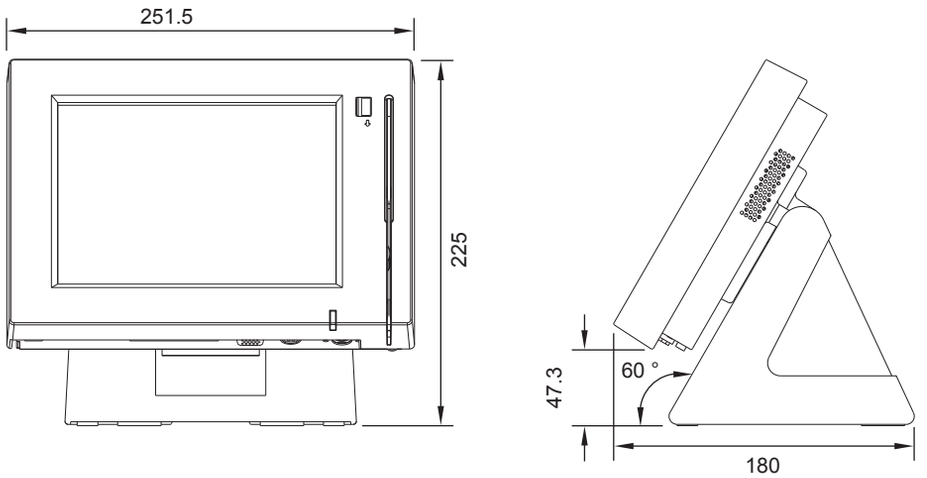


2-5-3. 12.1” System

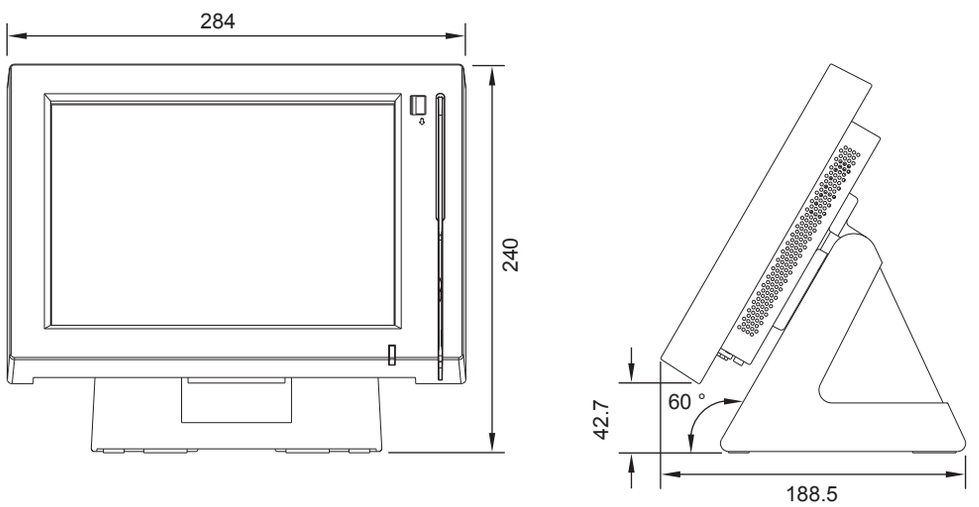


2-6. Dimensions - with 2nd Gen. Stand- 60 degree

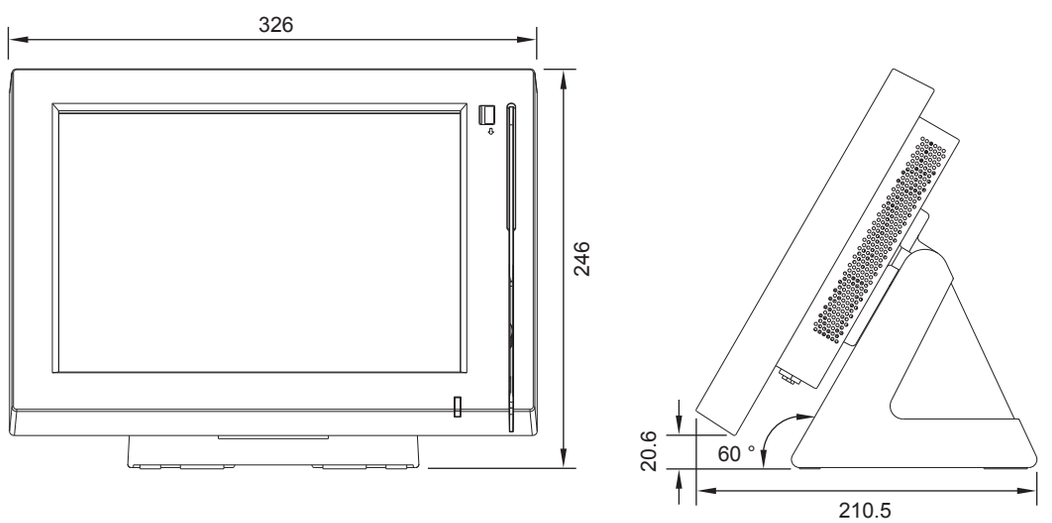
2-6-1. 8.4" System



2-6-2. 10.4" System



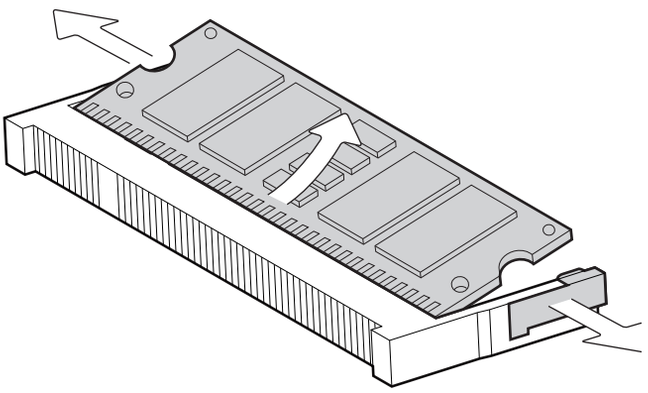
2-6-3. 12.1” System



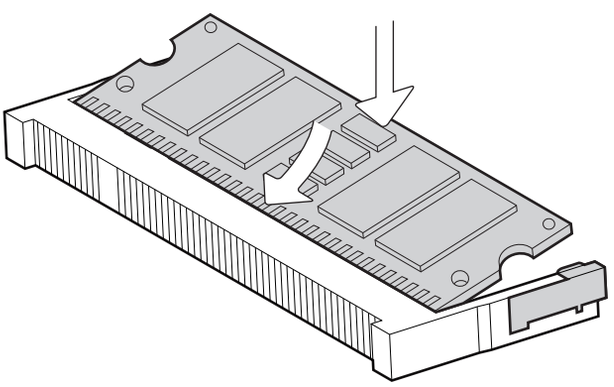
3. System Assembly

3-1. RAM Module Replacement

Removing a RAM module



1. Please Open the rear cover by unfastening the screws (x8) to access the motherboard. (See Chapter 3-2-1 Step 1&2)
2. Use both fingers to pull the ejector clips out of the sides of the module.
3. Slide out to remove the memory module from the memory slot.



Installing a RAM moudle

4. Slide the memory module into the memory slot and press down until the ejector clips click in place.

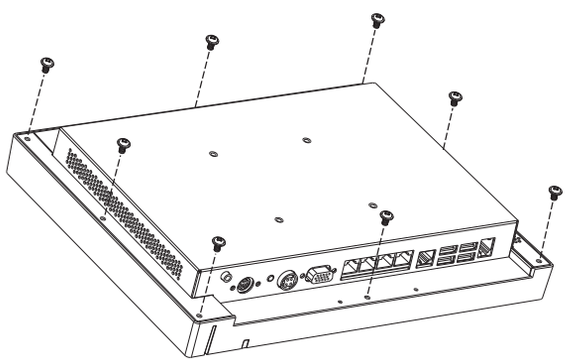
3-2. HDD Replacement

To remove and replace the HDD, please follow the steps below. The procedure is different depending on the 8.4”, 10.4” or 12.1” system being installed.

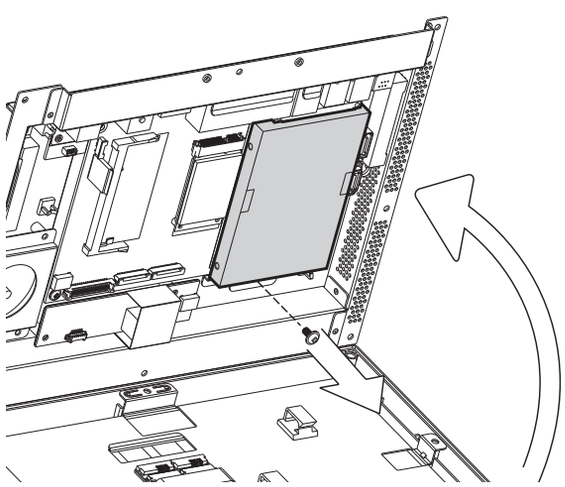
3-2-1. HDD replacement for 8.4” and 10.4” system

The HDD is installed on the motherboard, you need to uncover the rear cover first to access it. If your system is equipped with a stand or a wall-mount bracket, please remove them first.

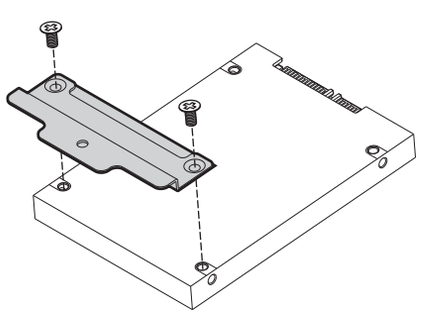
1. Turn to the rear side of the system and open the rear cover by unfastening all the screws.(8.4” with 6 screws;10.4” with 8 screws)



2. **Gently** flip up the rear cover due to various connectors connecting the motherboard to the LCD screen.
3. Unscrew the screw (x1) of the HDD holding bracket.
4. Disconnect the HDD connector and remove it with the holding bracket from the motherboard.



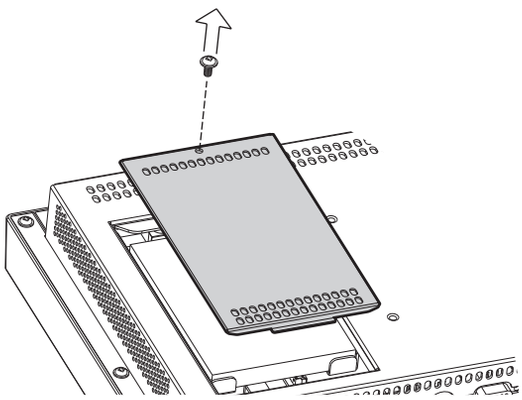
5. Unfasten the screws (x2) to separate the HDD holding bracket from the hard drive disk.
6. Reverse the steps above to replace the hard drive disk.



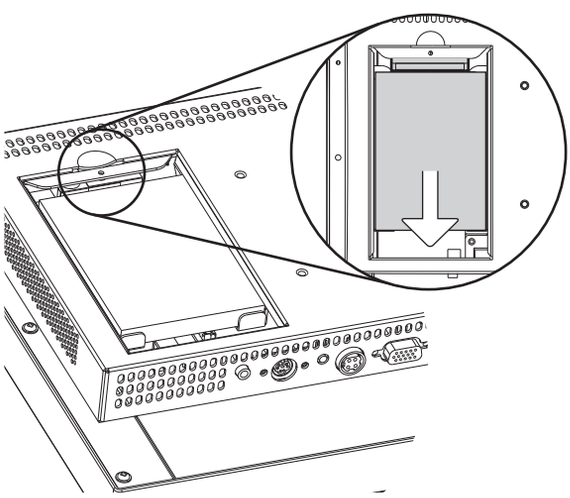
3-2-2. HDD replacement for 12.1” system

You can access the HDD easily by turning the system to the rear side on a 12” system. Please see detailed procedure below.

1. Turn to the rear side of the system to access the HDD door.
2. Unscrew the screw (x1) securing the HDD door to the rear cover of the system.



3. Disconnect the SATA cable from the drive.
4. Reverse above steps to replace the hard drive disk.

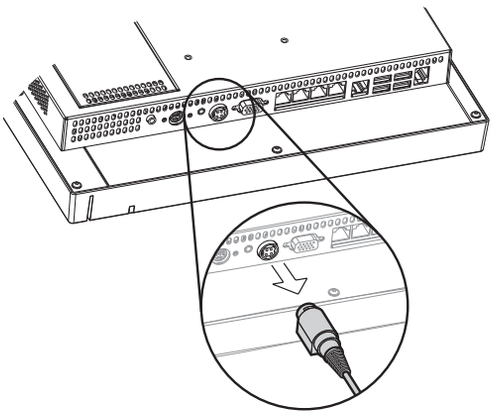


3-3. Power Adapter Installation

The system is equipped with a 65W power adapter. Please plug it into the system as shown below.

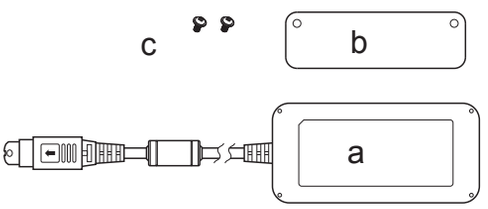
- 1st Gen. Stand

1. Please connect the power adapter directly to the DC-IN Connector on the I/O panel.



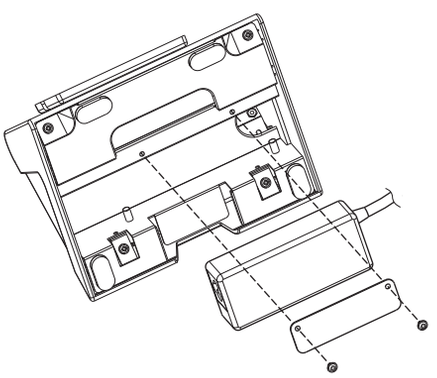
- 2nd Gen. Stand

Accessories of Power Adapter:
a. Power Adapter
b. Metal bracket
c. screws (x2)



1. Place the adapter into the space created by two alignment pins. Please make sure that power connector is supposed to be revealed for plug-in, rather than blocked by stand.

2. Fasten screws (x2) to fix the power brick holding bracket.

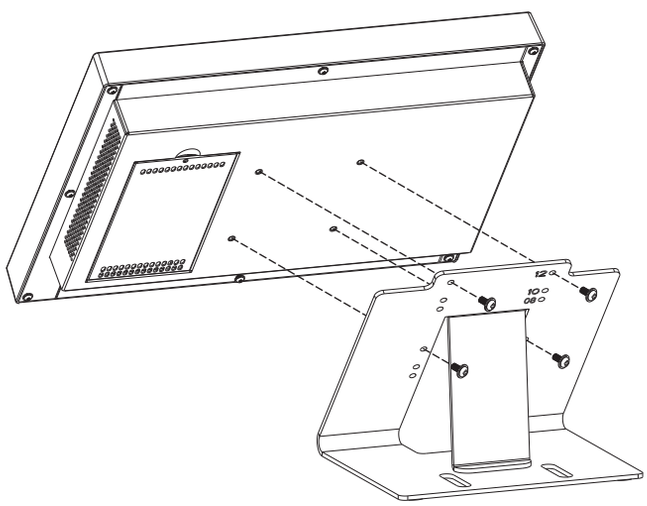


4. Peripheral Installation

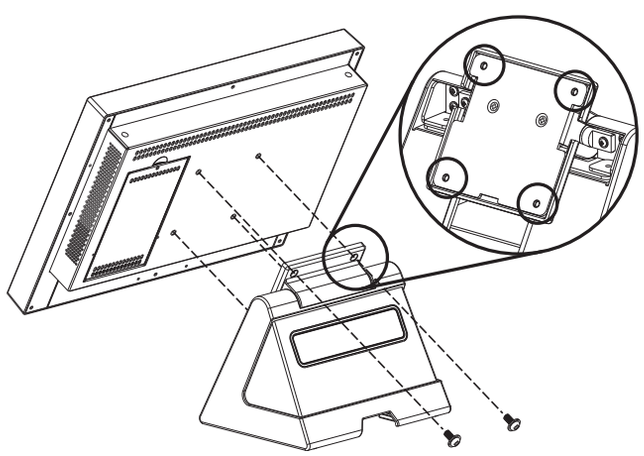
4-1. Stand Installation

1. Fasten the screws (x4) to fix the stand onto the system. The screw location may be slightly different according to system size (8.4”, 10.4” or 12.1”) .

- 1st Gen. Stand



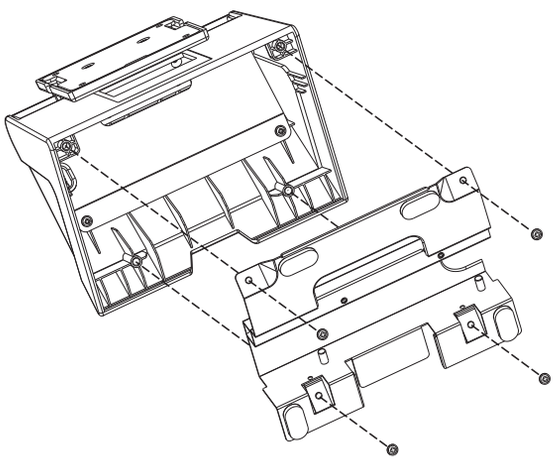
- 2nd Gen. Stand



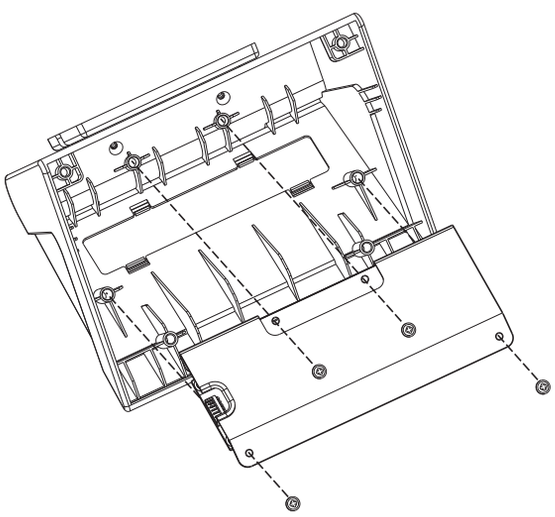
4-2. VFD Installation

The VFD requires 12V power and therefore must be connected to a powered COM port. In this system COM4 will be the default. As for Jumper Setting, please refer to Chapter 6-3-6.

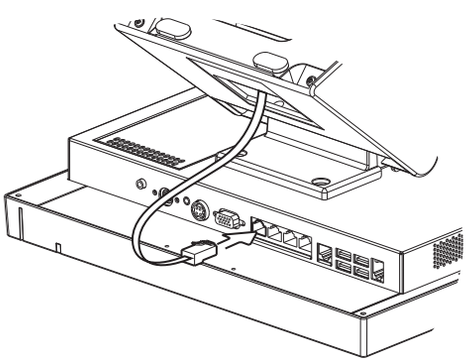
1. Release screws (x4) on the bottom of the stand.



2. Fix VFD module to the stand by screws (x4).



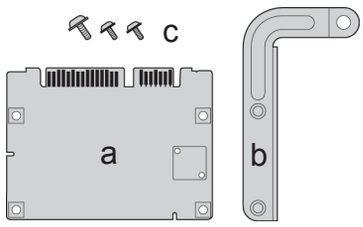
3. Finally connect the VFD cable to COM4 port on the system.



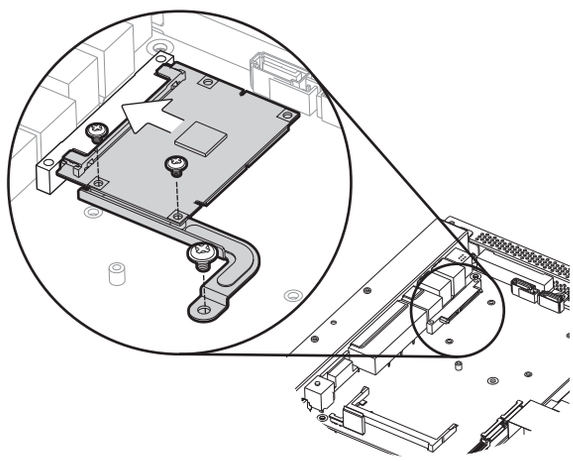
**** VFD module is necessarily and only attached to 2nd Gen. Stand.***

4-3. pSSD Card Module Installation

Accessories of pSSD card module:
a. pSSD Card
b. Metal bracket
c. screws (x3)



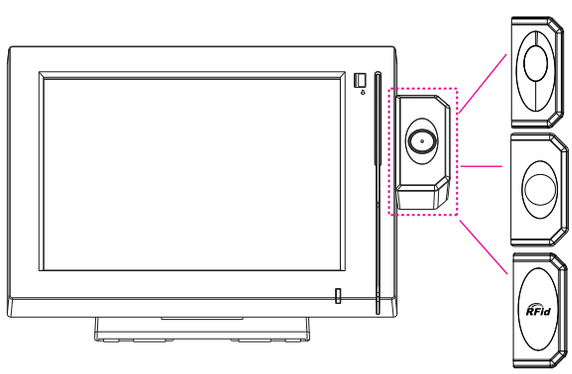
1. Open the rear cover to access the motherboard first. (See Chapter 3-2-1 Step 1&2).
2. To assemble the metal bracket and pSSD card by fastening the screws (x2).
3. Slide the pSSD card with metal bracket into the pSSD slot, press down and fix it to the motherbaord with the screw provided (x1).



4-4. Finger Print, iButton, RFID Installation

Finger Print, iButton, and RFID must be installed at the same place of the system by the same way.

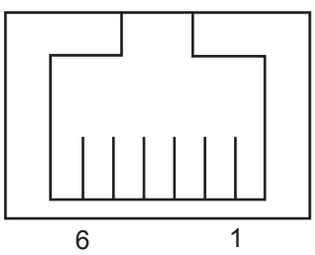
1. Please fasten screws(x2) on the back to fix the optional items onto the system.



4-5. Cash Drawer Installation

You can install a cash drawer through the cash drawer port. Please verify the pin assignment of your cable before installation.

Cash Drawer Pin Assignment



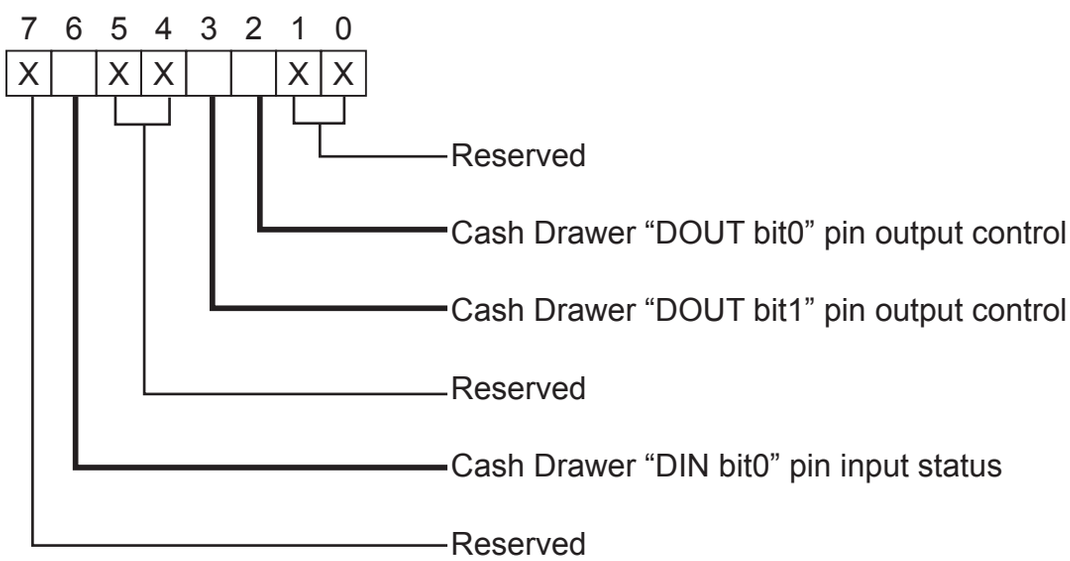
Pin	Signal
1	GND
2	DOUT bit0
3	DIN bit0
4	12V / 19V
5	DOUT bit1
6	GND

Cash Drawer Controller Register

The Cash Drawer Controller use one I/O address to control the Cash Drawer.

Register Location: 48Ch
Attribute: Read / Write
Size: 8bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
Attribute	Reserved	Read	Reserved		Write		Reserved	


7 6 5 4 3 2 1 0
X X X X X X
Reserved
Cash Drawer “DOUT bit0” pin output control
Cash Drawer “DOUT bit1” pin output control
Reserved
Cash Drawer “DIN bit0” pin input status
Reserved

Bit 7: Reserved
Bit 6: Cash Drawer “DIN bit0” pin input status.
= 1: the Cash Drawer closed or no Cash Drawer
= 0: the Cash Drawer opened
Bit 5: Reserved
Bit 4: Reserved
Bit 3: Cash Drawer “DOUT bit1” pin output control.
= 1: Opening the Cash Drawer
= 0: Allow close the Cash Drawer
Bit 2: Cash Drawer “DOUT bit0” pin output control.
= 1: Opening the Cash Drawer
= 0: Allow close the Cash Drawer
Bit 1: Reserved
Bit 0: Reserved

Note: Please follow the Cash Drawer control signal design to control the Cash Drawer.

Cash Drawer Control Command Example

Use Debug.EXE program under DOS or Windows98

Command	Cash Drawer
O 48C 04	Opening
O 48C 00	Allow to close
► Set the I/O address 48Ch bit2 =1 for opening Cash Drawer by “DOUT bit0” pin control. ► Set the I/O address 48Ch bit2 = 0 for allow close Cash Drawer.	

Command	Cash Drawer
I 48C	Check status
► The I/O address 48Ch bit6 =1 mean the Cash Drawer is opened or not exist. ► The I/O address 48Ch bit6 =0 mean the Cash Drawer is closed.	

5. Specification

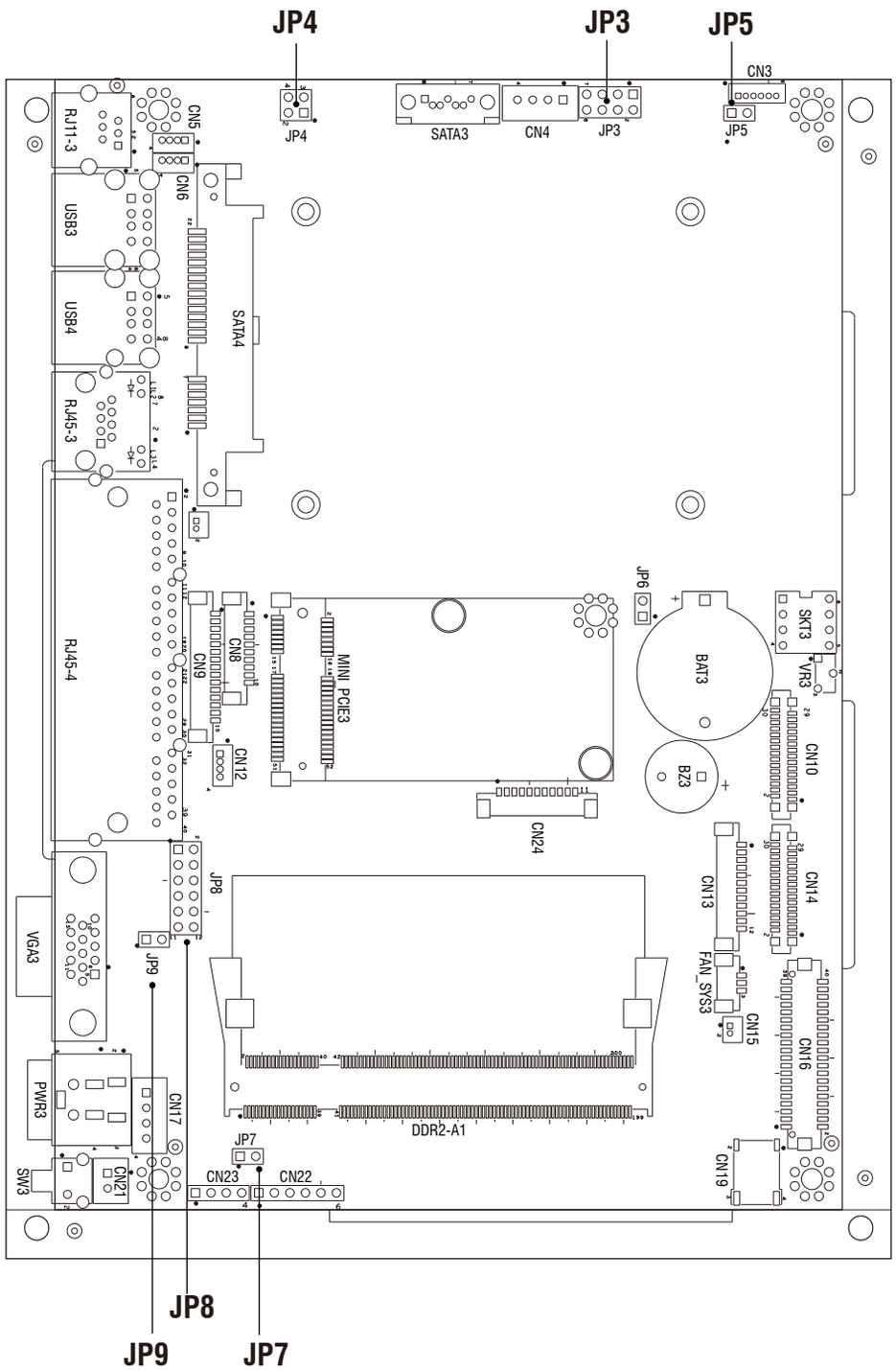
Motherboard	**C36**		
CPU Supports	Intel® Atom processors N270 1.6G L2 512K FSB 533Mhz		
Chipset	Intel® 945GSE Express chipset + ICH7M		
System Memory	1 x DDR2 DIMM up to 2GB FSB533Mhz		
Graphic Memory	Intel® GMA 950 share system memory up to 224MB		
BIOS	Phoenix-Award PnP		
LCD Panel			
LCD Size	8.4"	10.4"	12.1"
Brightness (cd/m²)	250	250	150 ~ 400
Maximal Resolution	800 x 600	800 x 600	800 x 600 / 1024 x 768
Touch Screen Type	Resistive		
Tilt Angle	0°~ 60 °		
Storage Device			
HDD	1 x 2.5” SATA HDD		
Flash Memory Card	SATA SSD Flash Card (optional)		
Expansion			
Mini-PCI e Socket	1		
Rear I / O			
USB	4 (USB 2.0)		
Serial/COM	4 x RJ45 (COM3/COM4 pin 9 with 5V/12V power)		
LAN (10 / 100/1000)	1		
2nd VGA	1		
Cash Drawer Port	1 (12V/24V cash drawer)		
DC Jack	1		
Power Button	1		
Power Supply	65W 19V /3.4A adapter build inside stand		
Peripheral			
MSR	Standard integrated 3 Track MSR (PS2)		
Finger Print	Optical Finger Printer Reader (USB, optional)		
RFID	RFID reader (USB, optional)		
Customer Display	2 x 20 slim type VFD customer display (COM, optional)		
iButton	iButton Reader (COM/PS2, optional)		

LCD Panel	8.4"	10.4"	12.1"
Environment			
EMC & Safety	FCC /CE Class A, LVD		
Operating Temperature	5 ° C ~ 35 ° C (41 ° F ~ 95 ° F)		
Storage Temperature	-20 ° C ~ 55 ° C (-4 ° F ~ 140 ° F)		
Operating Humidity	20% - 80% RH non condensing		
Storage Humidity	20% - 85% RH non condensing		
Dust & Water Proof	IP54 (Front bezel)		
Communication			
Wireless LAN	mini PCI e wireless LAN card 801.11 b/g/n		
Dimension (WxDxHmm) 0°	251.5 x 183 x 193	284 x 188.5 x 193	326 x 210.5 x 202
Dimension (WxDxH) 60 °	251.5 x 180 x 225	284 x 188.5 x 240	326 x 210.5 x 246
Weight (N.W./G.W.)	2.5kgs/3.5kgs	2.7kgs/3.7kgs	3.5kgs/4.5kgs
OS Support	Windows® XP Professional, Windows Embedded, POSReady 2009, Windows XP Embedded, Windows XP Professional for Embedded, WinCE, Windows 7, Linux		

* Product specifications subject to change without prior notice.
** Above specification is based on 2nd Gen. Stand.

6. Jumper Setting

6-1. Motherboard Layout



Version: C36A v1.1

6-2. Connectors & Functions

Connector	Purpose
CN9	Card Reader Connector
CN13	Inverter Connector
CN15	Power LED
CN16	LCD Interface Connector
CN22	5 Wire Touch
DDR2_A1	DDR2 SO-DIMM
FAN_SYS3	System FAN Connector
MINI_PCIE3	Mini PCI-E Socket
SATA3	SATA Connector
VGA3	VGA Port
JP3	LCD ID Setting
JP4	Cash Drawer Power Setting
JP5	Power Mode Setting
JP7	System Reset Setting
JP8	COM3 & COM4 Power Setting
JP9	VGA Power Setting

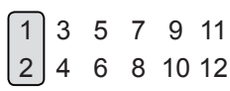
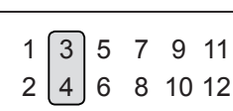
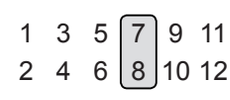
Motherboard Version: C36A v1.1

6-3. Jumper Setting

6-3-1. System Reset Settings

Function	JP7 (1-2)
▲Normal	
Reset	

6-3-2. COM3 & COM4 Power Setting

Function		JP8
COM3 Pin10	▲RI	
	+5V	
	+12V	
COM4 Pin10	▲RI	
	+5V	
	+12V	

▲ = Manufacturer Default Setting

6-3-3. Cash Drawer Power Setting

Function	JP4
▲+12V	
+19V	

6-3-4. Power Mode Setting

Function	JP5
▲ATX Power	
AT Power	

6-3-5. VGA Power Setting

Function	JP9
▲No Power	
+12V	

▲ = Manufacturer Default Setting

6-3-6. LCD ID Setting

Panel#	Resolution	LVDS		Output Interface	JP3
		Bits	Channel		
1	1366 x 768	24	Single	LVDS	1 3 [5] [7] 2 4 [6] [8]
2	1440 x 990	24	Dual	LVDS	1 3 [5] 7 2 4 [6] 8
4	1920 x 1080	24	Dual	LVDS	[1 3 5 7] [2 4 6 8]
5	1024 x 768	24	Single	LVDS	1 [3] [5] [7] 2 [4] [6] [8]
6	1280 x 1024	24	Dual	LVDS	1 [3] [5] 7 2 [4] [6] 8
7	800 x 600	24	Single	LVDS	1 [3] 5 [7] 2 [4] 6 [8]
9	1024 x 768	18	Single	LVDS	[1] [3] [5] [7] [2] [4] [6] [8]
11	800 x 600	18	Single	LVDS	[1] [3] 5 [7] [2] [4] 6 [8]
12	800 x 600	18	Single	LVDS	[1] [3] 5 7 [2] [4] 6 8
14	800 x 600	18		TTL	[1] 3 [5] 7 [2] 4 [6] 8
15	1024 x 768	18		TTL	[1] 3 5 [7] [2] 4 6 [8]
				CRT	[1] 3 5 7 [2] 4 6 8

Remark: Item #12 is only applied for Sharp panel 12" LQ121S1LG41/ LQ121S1LG42

[1 2] Jumper open [1 2] Jumper short

▲ = Manufacturer Default Setting

Appendix: Drivers Installation

The shipping package includes a Driver CD in which you can find every individual driver and utility that enables you to install the drivers on the system.
Please insert the Driver CD into the drive and double click on the “index.htm” to select the models. You can refer to the drivers installation guide for each driver in the “Driver/Manual List”.